



## ABSTRACT

~~The present invention provides a~~ A method for producing a single crystal by pulling a single crystal from a raw material melt in a chamber ~~in accordance with Czochralski method,~~ comprising according to the Czochralski method, including pulling a single crystal having a defect-free region-region, which is outside an OSF ~~region-region,~~ to occur in a ring shape in the radial ~~direction-and-direction,~~ and in which interstitial-type and vacancy-type defects do not exist in, ~~wherein the pulling of the single crystal is performed with being exist.~~ The pulling of the single crystal is controlled so that an average of ~~cooling-cooling~~ rate in passing through a temperature region of the ~~melt-melting~~ point of the single crystal to 950 °C is in the range of 0.96 °C/min or ~~more-and-so-that-an-average-of more,~~ an average cooling rate in passing through a temperature region of 1150 °C to 1080 °C is in the range of 0.88 °C/min or ~~more-and-so-that-an-average-of more,~~ and an average cooling rate in passing through a temperature region of 1050 °C to 950 °C is in the range of 0.71 °C/min or more. ~~Thereby,~~ production margin in pulling a single crystal having a defect-free region can be considerably enlarged and therefore there can be provided a method for producing a single crystal by which production yield and productivity of the crystal having the defect-free region can be considerably improved.